



**UNITED STATES DEPARTMENT OF COMMERCE**  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/364,794	07/30/99	BERGE	J 7480-PA1CP2

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EXAMINER

SHAPIRO, J

ART UNIT	PAPER NUMBER
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3651

DATE MAILED:

10/20/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/364,794

Applicant(s)

BERGE ET AL.

Examiner

Jeffrey A. Shapiro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-164 is/are pending in the application.

4a) Of the above claim(s) 2-10, 12-38, 40-58, 60-64, 66-71, 73-96, 98-101, 103, 104, 106-127, 129-137, 139-144, 146-150, and 152-163 is/are withdrawn from consideration.

- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 11, 39, 59, 65, 72, 97, 102, 105, 128, 138, 145 151, and 164 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some \* c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) \_\_\_\_\_.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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### ***Specification***

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 105 recites the limitations "directing means" in line 1 and "flexible tubing" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 164 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear in several areas what combination is being described, as, for example, in lines 1 and 2, "receptors or said ice sources" are recited, in line 3, a choice of "directly or through at least one" is recited, and in line 6, "receptors or ice sources" is recited.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1, 11, 39, 59, 65, 72, 97, 102, 105, 126, 128, 138, 145, 151, and 164, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Wade. Wade discloses the apparatus for conveying ice as follows.

As described in Claim 1;

- 1.) a hollow elongated ice conduit (17 and 18) connecting said source (11) of ice and said remote location (12, 13, and 14) and providing ice communication therebetween;
- 2.) a receptor (12, 13, and 14) at said remote location for receiving said ice;
- 3.) a vacuum pump (16) in fluid communication through a vacuum line with said receptor for withdrawing air from said conduit and creating a vacuum comprising said negative air pressure in said conduit, said negative air pressure causing said ice to traverse said conduit from said source into said receptor;

As described in Claim 11;

- 4.) said receptor at said remote location comprises an accumulator having therein an openable gate (32) for release therefrom at said remote location of accumulated pieces of ice conveyed thereto from said source;

As described in Claim 39;

- 5.) said vacuum line (17) connecting in fluid communication into said hollow conduit at a first point of connection (19) upstream of a second point of connection (20) of said hollow conduit into said receptor (12), and

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spaced apart from said second point of connection by an interval not greater than a distance that said ice pieces can traverse under momentum imparted to them by their prior conveyance by said negative air pressure (note the distance between the connection point of (19) with (17) from the connection point of (17) with 20), such that diversion of at least a portion of conveying force of said negative air pressure at said first point of connection does not prevent said ice pieces from continuing to traverse entirely through said hollow conduit into said receptor;

As described in Claim 59;

6.) said receptor (12) being disposed adjacent to an inlet of a subsequent conduit (17) leading to a subsequent accumulator at another remote location (13), and said pieces of ice released from said receptor being deposited into said inlet for conveyance through said subsequent conduit to said subsequent accumulator at said another remote location (note that whether said ice pieces are deposited into said receptor (12) and then receptor (13) through conduit (17) directly, or said ice pieces are deposited into said receptor (12), said receptor then depositing them into the next receptor (13), these two schemes are considered to be equivalent);

As described in Claim 72;

7.) sensor means (36, 37, and 38) for detecting the presence or absence of ice in said receptor;

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As described in Claim 102;

8.) said receptor (12) at said remote location comprises an air lock device (27) which is connected to said ice conduit (17) on an upstream side and which has an inlet for pressurised air from a source thereof on a downstream side and another conduit (20) extending from said downstream side for passage of said pressurized air, such that ice entering said air lock device from said ice conduit passes through said air lock device and propelled through said another conduit at high velocity by said pressurized air;

As described in Claim 105;

9.) said directing means comprises manual, mechanical, pneumatic or electrical positioning of said outlet end of said flexible tubing (note that (27) is moved by solenoid (29));

As described in Claim 126;

10.) a process of conveying ice comprising as follows;

a.) providing a hollow elongated ice conduit connecting said source of ice and said remote location and providing ice communication therebetween, a receptor at said remote location for receiving said ice, and a vacuum pump in fluid communication through a vacuum line with said receptor for withdrawing air from said conduit and creating a vacuum comprising said negative air pressure in said

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conduit, said negative air pressure causing said ice to traverse said conduit from said source into said receptor;

b.) withdrawing air from said receptor and conduit and creating a vacuum comprising said negative air pressure in said receptor and conduit;

c.) causing said ice to traverse said conduit from said source into said receptor under the influence of said negative air pressure;

As described in Claim 128;

11.) a process where said receptor comprises an accumulator, said process further comprising;

a.) providing an openable gate in said accumulator at said remote location;

b.) causing pieces of ice conveyed into said accumulator through said conduit by said vacuum to come to rest bearing upon said gate, said gate being biased against said opening;

c.) releasing of accumulated pieces of ice conveyed from said source from said accumulator at said remote location by counteracting or eliminating such biasing;

As described in Claim 138;

12.) a process as in Claim 126, further described as follows;

a.) connecting said vacuum line in fluid communication into said ice conduit at a first point of connection upstream of a second point

of connection of said ice conduit into said ice receptor, and spaced apart from said second point of connection by an interval not greater than a distance that said ice pieces can traverse under momentum imparted to them by their prior conveyance through said conduit by said negative air pressure;

b.) conveying said ice pieces under that amount of force of said negative air pressure at said first point of connection sufficient to cause said ice pieces to continue to traverse entirely through said first conduit and into said receptor without diversion of any ice pieces into said vacuum line;

As described in Claim 145;

13.) said receptor comprises an ice dispenser and further comprising detecting the presence of ice in said ice dispenser (36, 37, and 38);

As described in Claim 164;

14.) a plurality of receptors (12, 13, and 14) or said ice sources or said ice sources and said conduit having an intermediate division point from which a plurality of branch conduits extend (17, 20), each branch conduit leading directly or through at least one intermediate further division point from which a subsequent plurality of further branch conduits extend, to an ice communication connection with a respective one of said plurality of receptors or ice sources (note that there are intermediate points, such as



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where (20) branches off into (13) as an example of one of a number of branch points);

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 65, 97, and 151, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Wade in view of Pink et al. Wade describes the ice conveying apparatus as described above. In addition, Wade discloses the following.

As described in Claim 97;

1.) cleaner introduction means for introducing a liquid cleaner into said ice conduit and conveying said liquid cleaner through said ice conduit under said negative air pressure, whereby passage of said cleaner through said ice conduit cleans contaminants from the interior of said conduit, and upon discharge of said cleaner at an outlet of said conduit, removes from said conduit said contaminants entrained in said cleaner (note that it would be expedient for one of ordinary skill in the art to introduce a cleaning fluid into the device of Wade by means of the vacuum system employed by Wade, so as to clean out ice debris or ice sawdust built up over time);

Wade does not expressly disclose the ice unbridging means as described in Claims 65 and 151. Pink et al discloses the ice unbridging means as follows.

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As described in Claim 65;

1.) a collector (42) into which ice pieces delivered from said source of ice are received, said collector having a first opening (23) into said first conduit, and further comprising unbridging means (35, 36, and 37) associated with said collector for presenting said released ice pieces individually and unbridged to said first opening, whereby said ice pieces pass through said first opening into said first conduit;

As described in Claim 151;

2.) receiving ice pieces delivered from said source of ice in at least partially bridged condition, and unbridging said ice pieces prior to delivering said ice piece into said ice conduit;

Both Wade and Pink et al are analogous as both are examples of ice conveying apparatus'. It would have been obvious at the time of the invention for one of ordinary skill in the art to have added the unbridging means of Pink et al to the receptor of Wade. The motivation/suggestion would have been to encourage the ice to gravitate from the discharge port to another subsequent location. See lines 12-18 of column 3. Therefore, it would have been obvious to have combined Wade and Pink et al in order to obtain the invention as described in Claims 65, 97, and 151.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (703)308-3423. The examiner can normally be reached on 9:00 AM - 5:00 PM.

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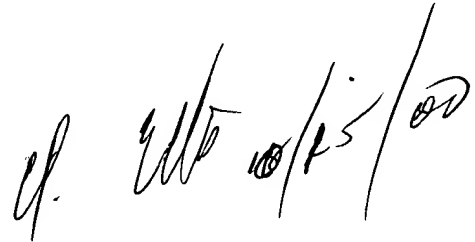
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher P. Ellis can be reached on (703)308-2560. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-0552 for regular communications and (703)308-0552 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1113.



Jeffrey A. Shapiro  
Patent Examiner,  
Art Unit 3651

August 23, 2000



CHRISTOPHER P. ELLIS  
PRIMARY EXAMINER